REMARKS/ARGUMENTS

Claims 1-14 are pending. Claims 1, 2, and 4-9 have been amended. New claims 10-14 have been added. No new matter has been introduced. Applicants believe the claims comply with 35 U.S.C. § 112.

The drawings are objected to under 37 CFR 1.83(a) for failing to show destination drive I/O port. As discussed in the specification at page 13, lines 19-20, each I/O port of each disk drive and each I/O port of the switch has a transmitter Tx and a receiver Rx (see Fig. 4). The disk adapter can send a frame to an arbitrary I/O port of one of the disk drives DK0 to DK7 (page 15, lines 9-11). For a drive number, a destination drive port ID to which a Read command is addressed and a destination drive port ID to which a Write command is addressed are set in a column 601 in the table of Fig. 6 (page 15, lines 17-21). Thus, the destination drive I/O port is one of the I/O ports (Rx, Tx) of the disk drive (DK1-DK7) as shown, for instance, in Fig. 4. Therefore, withdrawal of the objection to the drawings is respectfully requested.

Claims 1 and 2

Claims 1 and 2 stand rejected under 35 U.S.C. § 102(a) as being anticipated by Tanaka et al. (US 2003/0191891).

Applicants respectfully submit that independent claim 1 as amended is novel and patentable over Tanaka et al. because, for instance, Tanaka et al. does not teach or suggest a destination drive I/O port, which is one of the plurality of I/O ports, to which a frame is to be forwarded is determined by the disk adapter, according to the type of a command included in an exchange that is transferred between the disk adapter and one of the disk drives. Support for this feature is provided in the specification, for instance, at page 19, lines 3-6.

Tanaka et al. discloses that the switch changes over connection between ports connected to which the disk adapter is connected and ports to which disk drives constituting the disk array are connected, in accordance with destination information in a frame for each

of inputted frames (see paragraphs [0044]-[0045]). Thus, the switch, not the disk adapter, determines the destination port in Tanaka et al.

For at least the foregoing reasons, claim 1 and claim 2 depending therefrom are novel and patentable over Tanaka et al.

Claims 6 and 14

Claim 6 stands rejected under 35 U.S.C. § 102(a) as being anticipated by Tanaka et al. New claim 14 depends from claim 6.

Applicants respectfully submit that claim 6 is novel and patentable over Tanaka et al. because, for instance, Tanaka et al. does not teach or suggest that the disk adapter determines destination information within a frame to be transferred from the disk adapter to one of the disk drives, according to the type of a command included in an exchange between the disk adapter and the one of the disk drives, and that the switch selects one of port to port connection paths between a port to which the disk adapter is connected and ports to which the disk drives constituting the disk array are connected to switch each frame inputted to the switch, according to the destination information within the frame.

Nothing in Tanaka et al. suggests that the disk adapter determines destination information within a frame to be transferred from the disk adapter to one of the disk drives, according to the type of a command included in an exchange between the disk adapter and one of the disk drives. Instead, Tanaka et al. discloses that the switch changes over connection in accordance with destination information in a frame for each of inputted frames (see paragraphs [0044]-[0045]). More specifically, the switch changes over connection between input and output ports in the round robin manner to thereby transfer the plurality of input frames to the output port frame by frame; with the round robin method, the switch is changed over periodically (see paragraph [0129]). As such, the switch in Tanaka et al. does not select one of port to port connection paths between a port to which the disk adapter is connected and ports to which the disk drives constituting the disk array are connected to switch each frame inputted to the switch, according to the destination information within the frame which was determined by the disk adapter according to the type of the command.

For at least the foregoing reasons, claim 6 and claim 14 depending therefrom are novel and patentable over Tanaka et al.

Claims 3-5 and 7-13

Claims 3, 7, and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable by Tanaka et al. in view of Hashemi et al. (US 5,396,596). The Examiner recognizes that Tanaka et al. does not disclose that the exchange for reading data and the exchange for writing data are executed in parallel, but cites Hashemi et al. for allegedly providing the missing teaching. Independent claims 4 and 8 as amended and new independent claim 13 also recite this feature. Claim 5 depends from claim 4. New claims 10-12 depend from claims 7-9, respectively.

Applicants respectfully submit that dependent claim 3 and independent claims 7-9 and 13 are patentable over Tanaka et al. and Hashemi et al. because, for instance, they do not teach or suggest that either the path which the frame passes between the switch and one of the disk drives or the destination drive port to which a frame is to be forwarded is determined, depending on whether the type of the command included in an exchange is a data read command or a data write command, and that the exchange for reading data and the exchange for writing data are executed in parallel.

Tanaka et al. is devoid of any suggestion for executing the exchange for reading data and the exchange for writing data in parallel. Although Hashemi et al. discloses simultaneous reading from and writing to a buffer memory, it does not suggest a switch or a similar mechanism for executing the exchanges in parallel.

Applicants submit that the combination of Tanaka et al. and Hashemi et al. has been impermissibly made with hindsight. The Examiner has not pointed to any clear and particular evidence of a suggestion, teaching, or motivation to combine Tanaka et al. and Hashemi et al. Federal Circuit "case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references." *In re Dembiczak*, 50 U.S.P.Q. 2d 1614, 1617 (Fed. Cir. 1999) (citations omitted). "Combining prior art references without evidence of such a suggestion, teaching, or

motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight." *Id.* (citing *Interconnect Planning Corp. v. Feil*, 227 U.S.P.Q. 543, 551 (Fed. Cir. 1985)). To guard against the tempting trap of hindsight, the evidence of a suggestion, teaching, or motivation to combine "must be clear and particular." *Id.* (citation omitted).

Tanaka et al. discloses that the switch changes over connection between input and output ports in the round robin manner periodically. Hashemi et al. discloses simultaneous reading from and writing to a buffer memory using bidirectional transceivers 24_{t0} to 24_{r3} in conjunction with READ data logic unit 24_{dr} and WRITE data logic unit 24_{dw} (col. 15, lines 7-15 and Fig. 6). Nothing in Hashemi et al. provides the motivation to modify the switch in Tanaka et al. to execute the exchanges in parallel. To justify the combination, "[t]he references themselves must provide some teaching whereby the applicant's combination would have been obvious." *In re Gorman*, 18 U.S.P.Q.2d 1885, 1888 (Fed. Cir. 1991). The references in this case provide no such teaching. The case law does not allow the use of Applicants' disclosure as a template for piecing together references to defeat patentability.

Moreover, neither Tanaka et al. nor Hashemi et al. teach or suggest that the destination drive port to which the frame is to be forwarded or the path which a frame passes to be transferred between the switch and one of the disk drives is determined by the disk adapter, as recited in claim 1 from which claim 3 depends, and in dependent claims 5 and 10-12.

For at least the above reasons, claims 3-5 and 7-13 are patentable over Tanaka et al. and Hashemi et al.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

Chun-Pok Leung
Reg. No. 41,405

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 415-576-0300
RL:rl
60674821 v1